



Work Instruction

DIRECTIVE NO. 270-WI-4520.2.1G

EFFECTIVE DATE: November 16, 2009

EXPIRATION DATE: November 16, 2014

APPROVED BY Signature: Original signed by

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TITLE: Division

COMPLIANCE IS MANDATORY

Responsible Office: 270/Information and Logistics Management Division

Title: Receiving Project Parts

PREFACE

P.1 PURPOSE

This procedure describes the process for performing and documenting receipt and inspection of electrical, electronic, electromechanical (EEE) parts and mechanical hardware.

P.2 APPLICABILITY

This procedure applies to all electrical, electronic, electromechanical (EEE) parts and mechanical hardware under the control of the Code 273, Supply and Equipment Management Branch used in scientific and ground support material and equipment for space flight projects and ground support systems that are covered under the scope of the GSFC MS Policy. Receiving of these products shall be managed by the Code 273, Supply and Equipment Management Branch and supported by the Project Parts Section of the Code 279 logistics services contractor.

P.3 REFERENCES

- a. NPR 4100.1, NASA Materials Inventory Management Manual
- b. GSFC-WM-001, Workmanship Manual for Electrostatic Discharge Control
- c. GPR 1710.1, Corrective And Preventive Action
- d. GPR 4520.2, Receiving Inspection Test
- e. GPR 5340.2, Control of Nonconformances
- f. 270-WI-5340.2.1, Control of Non-Conforming Project Parts
- g. 270-WI-6400.1.4, Packaging and Marking of Project Parts

P.4 CANCELLATION

270-WI-4520.2.1F, Receiving Project Parts

P.5 TOOLS, EQUIPMENT, AND MATERIALS

- a. Desktop computer capable of interfacing with the Advanced Materials Management System (AMMS), Receiving Inspection and Test System (RITS), GSFC Audit/NCR database and other applicable software programs.

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- b. ESD workstation
- c. Printer

P.6 SAFETY PRECAUTIONS AND WARNINGS

- a. This receiving and inspection function is conducted in a working warehouse. Standard safety precautions pertaining to use of forklifts, pallet jacks, carts, utility knives, etc. apply.
- b. Material processed can be bulky and heavy. Particular emphasis shall be placed on proper lifting techniques.
- c. Safety shoes shall be worn at all times while engaged in receiving and inspection functions. Safety shoes suitable for use in an ESD environment are preferred.
- d. Electrostatic Discharge Sensitive (ESDS) material shall be inspected in the Code 270 ESD Facility, Bldg. 16W. An ESD trained Receiving Inspector shall validate the part number, stock number, quantity and condition of the material. ESDS items shall be handled and inspected in accordance with GSFC-WM-001.

P.7 TRAINING

Certification is required in order to handle any material classified as Electrostatic Discharge Sensitive (ESDS), as guided by GSFC-WM-001, Workmanship Manual for Electrostatic Discharge Control.

P.8 RECORDS

Quality Record Title	Record Custodian	Retention
Inspection Data Files. Includes: GSFC Form 20-4 or GSFC 11-54(copy) Shipping/Mailing Request form; 270-FORM-0068 Receiving Discrepancy Form; GSFC 4-30 Work Order Authorization; AMMS generated receipt travelers	Project Parts Warehouse Supervisor	NRRS 8/103 - Destroy/delete between 5 and 30 years after program/project termination. Maintain with corresponding Inspection Data Files

**NRRS – NASA Records Retention Schedules (NPR 1441.1)

P.9 METRICS

a. Performance Based Metrics: Project Parts Receiving operations will be evaluated using performance based metrics contained in the Performance Requirements Summary of the Goddard Logistics Services contract. Designated Code 273 performance monitors will take random samples of these performance measures and record them in spreadsheets saved in a shared directory that is available to both Government and contractor personnel. These metrics are summarized below:

SOW Section	Required Service	Standard	DQL/AQL
4.5	Project Parts receipt, inspection, and paperwork processing are completed within 15 calendar days of delivery to the GSFC Receiving Dock. Fasteners excluded.	Material is properly documented when information reflecting the identity, quantity, and condition of material is entered into AMMS and the Receiving, Inspection and Test System by the Receiving Inspector.	90%/80%

P.10 DEFINITIONS

- a. ESD Material: Material that is sensitive to Electrostatic Discharge. Special handling is required.
- b. Inspection: As a minimum, verifies the kind, count and condition of material.
- c. Receiving /Inspection Personnel: Individuals responsible for receipt and inspection of incoming material.
- d. Project Parts: EEE parts or mechanical hardware that are obtained by the Code 279 Project Parts Section for distribution to projects. These parts will be used by the projects for engineering and/or flight equipment.
- e. Receiving Inspection Instructions: Technical guidance provided by the initiator of a procurement, included in the procurement package, recorded on the Purchase Order and in AMMS, included on the WOA and directed at Code 279 Receiving Inspectors.
- f. Certificates of Compliance (C of C): Parts documentation that includes manufacturer name, manufacturer location, date codes, date of manufacture, part number, lot number, applicable specification and name and signature of the manufacturer's authorized representative. The data reflected on a C of C may vary with product manufacturer (s).

INSTRUCTIONS

In this document, a requirement is identified by "shall," a good practice by "should," permission by "may" or "can," expectation by "will," and descriptive material by "is."

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1.0 General Information

This section contains procedures applicable to the receipt and inspection of, and the accounting for, incoming material. Adherence to these procedures will ensure that shipments are correct with respect to kind, count and condition, or that appropriate corrective action has been initiated. Although purchase orders are written with general warranty clauses to cover defects in workmanship and other latent discrepancies, these procedures are intended to protect Code 279 and the Government against defective parts.

2.0 Responsibilities

2.1 Supply Branch Manager - The Code 279 Supply Operations Branch Manager at GSFC is responsible for the overall receiving and inspection activities of electrical, electronic, electromechanical parts and mechanical hardware for designated flight projects and the Project Parts Section stores stock inventory.

2.2 Receiving Inspectors - The Receiving Inspector(s) assigned to the Project Parts Section is responsible for:

- a. Inspecting and processing for delivery to stock or direct turn over Code 279 procured material.
- b. Documenting and processing for appropriate disposition discrepant/nonconforming material.
- c. Providing specialized handling and processing of space flight hardware and ground support materials.
- d. Initiating and forwarding to the Project Parts Procurement section a 270-FORM-0068 for all nonconforming/discrepant shipments.
- e. Following Receiving Inspection Instructions and preparing a Work Order Authorization when required.

3.0 Quality Control Process

The receiving/inspection operation will be evaluated by Code 273 on the effectiveness of the operation, including accurate movement from point of receipt to delivery line or stock location, and inspection of materials (including a check for quantity, comparison of part numbers, description, and a visual check for missing components or damaged material). The receiving and inspection operation will also be evaluated on whether non-conforming material is rejected and segregated, and appropriate follow-on action is initiated.

4.0 Inspection

The following instructions are applicable for the inspection of incoming project parts materials:

- a. All incoming Code 279 procured material, material transfers from other centers, Government agencies, or contractors, will be inspected in accordance with this work instruction.
- b. Material will be processed on a first-in/first-out basis except for high priority material.

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- c. Shipment contents shall be verified with the terms and conditions of the purchase order. This normally consists of a quantity check, comparison of part numbers, stock numbers description, and a visual check for missing items or damage.
- d. The purchase order and receipt shall be annotated to indicate the items and quantities received.
- e. A date Stamp will be placed on the back of the original packing slip to indicate date material arrived on dock.
- f. The original receipt, indicating the material has been received and accepted, along with a copy of the Packing Slip shall be forwarded to the Code 279 Accounting Office for invoice payment and filing.
- g. The Purchase Order will specify if a Certificates of Certification (C of Cs) is required for the incoming parts. The Receiving Inspector shall ensure a C of C accompanies the material if items were purchased for direct turn over to a customer or that the C of C is filed if the material is being stored by Code 279.

5.0 Management System (MS) Material

Most incoming material for Project Parts falls under the GSFC Management System (MS), and as such must be documented with a Work Order Authorization (WOA) that is required to be part of the customer-originated procurement package. The WOA will be called up from the Center's on-line Receiving, Inspection and Test System (RITS) and the referenced WOA located. In the case of MS material received without a WOA, the Receiving Inspector will contact the Acquisition Specialist and request that a WOA be initiated prior to completion of the inspection process. Upon completion of the inspection process, the RITS will be updated with inspection results and a hard copy of the WOA attached to the material. If the customer specifies that incoming material be released without a completed inspection (e.g. "urgent release") the WOA shall be annotated with an indication of this customer requirement and a Nonconformance Report shall be prepared following the procedures specified in this work instruction and as managed through the Center's on-line automated [Audit/NCR](#) system.

6.0 Receiving Material in the Advanced Materials Management System (AMMS)

Inspection information reflecting the identity, quantity, and condition of material shall be entered into AMMS by the Receiving Inspector using the appropriate transactions as outlined in AMMS Receiving Scripts.

The Inspector will determine if incoming material passes inspection using Receiving Inspection Instructions provided on the Purchase Order and the WOA. If material passes inspection, the Inspector shall process the necessary receipt transactions in AMMS in accordance with AMMS Receiving Scripts. If the inspector finds a discrepancy or nonconformance with incoming material, the material will be processed as described in section 7.0 below.

7.0 Discrepancies in Shipment and Non-Conforming Material

Non-conforming material shall be processed in accordance with 270-WI-5340.2.1. The material and its accompanying documentation will be placed in the designated reject hold area and entered into the

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Receiving Inspector's Reject Log. Technical advice from the requestor may be solicited to validate conformance with technical specifications. Examples are:

- a. material damage
- b. incorrect part or serial number
- c. ESDS items with broken ESD protective packaging
- d. shortages/overages
- e. items not conforming to the accompanying packing slip

The Inspector will work with the Acquisition Specialist and the customer to make every attempt to rectify discrepant incoming material. If the discrepancy cannot be resolved, the Acquisition Specialist will coordinate the return of the material to the vendor.

8.0 Return of Material to Vendor

When the determination has been made that material is to be returned to a vendor, the Acquisition Specialist for that procurement shall contact the vendor and arrange for the return. The Receiving Inspector shall prepare the material for shipment back to the vendor and notify the Acquisition Specialist that the material is ready for shipment. If the material is being returned at Goddard's cost, the Material Coordinator and Acquisition Specialist will prepare a GSFC 20-4 or GSFC 11-54 to provide to the Transportation Branch as authorization to ship the material back to the vendor. The Inspector, Acquisition Specialist, and Material Coordinator will work together to obtain replacement parts to satisfy the customers' requirements.

9.0 Lost or Damaged Material (Surveys)

If material is damaged or lost in the process of receiving, a Survey Report (NASA Form 598) will be initiated. Reports of Survey will be initiated within five workdays after determining damage to or loss of material. The NASA Form 598 will be completed and submitted to the Code 273 Equipment Management Section within 30 days of being initiated.

10.0 Disposition and Reporting of Non-Conforming Material

When products or services within the [scope of the MS](#) are found to not meet specifications, a major or minor Nonconformance Report (NCR) is prepared following the general guidance provided by [GPR 5340.2](#) and the provisions of this section. Typical examples of major nonconformances that must be reported include the results of damage discovered during storage and issue, defective services that result in damage, customer complaints and discrepancies found as a result of audits. Systematic and pre-launch product nonconformances require corrective action determination and implementation in accordance with GPR 1710.1. Minor nonconformances are those discrepancies that do not meet the thresholds described above, but do require careful consideration and, in some cases, follow-up action. Examples of minor non-conformances are simple kind and count receiving discrepancies, missed delivery dates which have no operational impact and minor deviations from internal processes or specifications which have no effect on the quality or timeliness of final product

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delivery. This applies to Code 270 personnel as well as individuals or organizations that provide equipment or services to Code 270 and covered by the scope of the MS.

10.1 Nonconformance Management

10.1.1 Systematic Nonconformances

The overall Nonconformance Lead (NCL) for the activities in this work instruction is the Code 273 Supply and Receiving Team Lead. The NCL serves as the principal point of contact within LMD responsible for the management and proper functioning of the nonconformance process in that functional area, provides technical oversight and identifies nonconformance trends that may require changes to existing policies or procedures, and reports significant issues to higher management. The NCL is also responsible for reviewing and processing Nonconformance Reports (NCRs) received from any source as well as directing and documenting corrective actions taken in response to NCRs. The primary documentation for these activities shall be created in the automated [Audit/NCR System](#), which is accessed via the GSFC MS website.

10.1.2 Pre-Launch, Product Nonconformances

Pre-launch product nonconformances shall be documented in the [PR/PFR system](#). PR/PFR numbers shall be cross-referenced on the applicable Work Order Authorization (WOA) in accordance with GPR 5330.1 and GPR 4520.2. Until such time as software is integrated with hardware, software nonconformances shall be documented in controlled local systems if the PR/PFR system is not used. Unless otherwise specified by the project Product Design Lead (PDL), Code 270 personnel will input to the PR/PFR system as a "Guest User". Any follow-on actions will be directed on a case-by-case basis by the PDL.

10.1.3 Minor Nonconformances

There is no single method for documenting and dispositioning minor nonconformances. All minor nonconformances shall be recorded in an approved record, and, the cognizant supervisor or manager shall review the documentation and determine the most appropriate disposition. In those instances when a close out action is necessary, it will also be annotated in an approved record. In the case of this work instruction, nonconformances are primarily discovered during actual Procurement of Project Parts, Greenbelt, operations.

10.2 Systematic Nonconformance Initiation and Disposition

After the NCL reviews an NCR, the NCL shall request and/or develop disposition recommendations. For most shipments, this will be an internal process. In the case of services provided directly under the direction of operational Projects, the appropriate Project personnel shall be consulted. In some cases, the Project may assume control of the Audit/NCR process. In those cases, the NCL will update the NCR to show this transition. In all other cases, the NCL shall lead the NCR disposition process.

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Once the review is complete, the NCL shall input the disposition into the Audit/NCR System. In cases where policy may be affected, the LMD management shall be consulted prior to completing the disposition process. If no corrective actions are required, the NCL shall close out the NCR.

10.3 Systematic Nonconformance Corrective Actions

If resolution of the NCR involves initiation of corrective action, the NCL shall continue to update the NCR with Root Causes, Actions Taken and Remedial Actions if and when they are part of the corrective action process. Upon completion of all corrective actions, the NCL shall close out the NCR. In some cases corrective actions will point to other nonconformance issues that need to be resolved. If this happens, the NCL shall create a follow-on NCR, and the process will begin again.

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CHANGE HISTORY LOG

Revision	Effective Date	Description of Changes
Baseline	1 Oct 98	
A	1 Feb 99	<ul style="list-style-type: none"> • Adds information on Quality Records to section P4. • Adds additional instructions for handling Electrostatic Sensitive (ESD) material in paragraph 5.4. • Adds paragraph 8.4 describing the role of Work Order Authorizations (WOAs) and the Receiving, Inspection and Test System in the Project Parts receiving process. • Adds section 8.12 on Nonconformance Reporting.
B	27 Apr 99	<ul style="list-style-type: none"> • Inserted new P8 Cancellation. Renumbered P8 to P9 and P9 to P10. • 9.5 ISO product received without a WOA will be inspected for kind, count, condition delivered to the end user, and an NCR written • 9.12.1 Update NCR organization with correct project name and lead designation. • 9.12 Add wording to indicate that all audit discrepancies will be documented with an NCR • Modified numbers on Flow Diagram in P10 • Miscellaneous editorial changes to improve clarity
C	1 June 99	Modified P4 to identify appropriate Record Retention Schedule.
D	13 Aug 99	<ul style="list-style-type: none"> • Modified P4 to identify Sup 8 as Quality Record to record minor nonconformances • Modified 9.12 to provide for both major and minor nonconformances.
E	10 Feb 00	<ul style="list-style-type: none"> • Added tables to reflect performance metrics and performance standards.

CHANGE HISTORY LOG *Continued*

E		<ul style="list-style-type: none"> • Changed the web site for the automated NCR/CAS system to http://ncr.gsfc.nasa.gov. • Modified P5d. to change ESDS items will be handled and inspected in accordance with NASA-STD 8739.7. • Modified 9.5 to change procedures for material received without a WOA. • Modified 9.9 to clarify wording about receipt of material in AMMS and RITS
F	7 Feb 05	<ul style="list-style-type: none"> • Changed to most recent Work Instruction Format • 9.4 – Added instructions concerning Certificates of Conformance • Section 1.2 Receiving Inspector Responsibilities – deleted resolve discrepant shipments and timeline and added Initiate and forward to the Project Parts Procurement function, Form 270-FORM-0068 for all nonconforming shipments. • Section P.9 Metrics – Added the Standard Metric table and filled in according to Receiving Project Parts Operations. • Added to Section 1.4. Inspection “g” – Certificates of Certification (C of Cs) are needed for all flight-qualified parts, and for some engineering parts if specified on the Purchase Order. The Receiving Inspector shall ensure a C of C accompanies the shipment. • As directed during the FY04 Center Rules Review, the Responsible Office modified this document to remove requirements that were no longer needed and to clearly distinguish requirements from supporting information. Administrative changes were made throughout to correct responsible organization names and codes, and to re-title Goddard Procedures and Guidelines (GPG) to Goddard Procedural Requirements (GPR) and NASA Procedures and Guidelines (NPG) to NASA Procedural Requirements (NPR) • Updated the Nonconformance Section.
F	14 May 06	<ul style="list-style-type: none"> • Administratively updated to reflect a change in the owning organization code from 230 to 270.
G	16 Nov 09	<ul style="list-style-type: none"> • Changed all QMS references to MS • Replaced all NASA-STD 8739.7 references with GSFC-WM-001 • Added in Receiving Inspection metric as performance requirement • General minor modifications to bring document in alignment with current processes